

Attorney Docket: 27098U Date: April _/3_, 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Art Unit: 1614

VENNEMANN, et al.

Examiner: Unknown

Appl. No.:

10/562,137 /

Filed:

December 23, 2005

For: PYRROLODIHYDROISOQUINOLINES AS PDE10 INHIBITORS

TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith for filing in the U.S. Patent and Trademark Office is the following:

- 1) Information Disclosure Statement;
- 2) PTO Form-1449 with 29 cited References, with copies for 25 of the 29 cited References.

The Commissioner is hereby authorized to charge any deficiency or credit any excess to Deposit Account No. 14-0112.

Respectfully submitted, NATH & ASSOCIATES PLLC

Gary M. Nath, Reg. No. 26,965 Sheldon M. McGee, Reg. No. 50,454

Customer No. 34375

NATH & ASSOCIATES PLLC 112 South West Street Alexandria, VA 22314

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

An Information Disclosure Statement is submitted herewith pursuant to 37 C.F.R. 1.97-1.98. Please note the following particulars: [NOTE: One only of items a, b, c, and d must be checked.]

- [XXX] a. The enclosed statement is being filed within three months of the filing date of a national application, or within three months of the date of entry into the national stage as set forth in 37 C.F.R. 1.491 in an international application, or before the mailing date of a first Office Action on the merits, whichever event occurs last.
- [] b. The enclosed statement is being filed after a first action on the merits but before the mailing date of a final action under 37 C.F.R. 1.113, or a notice of allowance under 37 C.F.R. 1.311.

The enclosed statement is accompanied by [check one]:

- [] i. a certification in part (e) below as specified in 37 C.F.R. 1.97(e), or
- [] ii. a check in the amount required by 37 C.F.R. 1.17(p).
- [] c. The enclosed statement is being filed after the mailing date of a final action under 37 C.F.R. 1.113, or a notice of allowance under 37 C.F.R. 1.311, but before payment of the issue fee.

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[]	Сe	ertific	cati	ion 1	report(e	e) k	below; and			
[]	а	check	in	the	amount	as	required	by	1.17(p)

- [] d. The enclosed statement is being filed pursuant to 37 C.F.R. 1.97(i), for placement in the file.
- [] e. Certification [Check one] [Certification is required only if box (b)(i) or box (c) is checked.]
 - [] I hereby certify that each item of information contained in the enclosed Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement,

or

[] I hereby certify that no item of information in the enclosed Information Disclosure Statement herewith was cited in a communication from a foreign patent office in a counterpart foreign application, or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

or

- [] Appropriate certification is attached.
- [XXX] f. If no check is enclosed and a fee is due in connection with this communication or if the check enclosed is insufficient, the Commissioner is authorized to charge any fee or additional fee due in connection with this communication to Deposit Account No. 14-0112.
- [XXX] g. Copies of the documents are attached herewith with a completed Form PTO-1449.

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[] Copies of the documents are not attached as allowed under CFR 1.98(d)(1)(2). The earlier application is identified as:

and / or

[XXX] Copies of US Patents/Publications not attached as allowed in Official Gazette Aug. 5, 2003/ Vol. 1273, no. 1.

The Examiner is respectfully requested to cite the documents listed on the attached Form PTO-1449 in the next Office Action. In so doing, the Examiner is respectfully requested to initial in the space adjacent to the listing of each document on the Form PTO-1449, and return a copy of the initialed Form PTO-1449 with the next communication to Applicants, to confirm that these documents have been considered by the Examiner and made of record in this application.

If the Examiner has any questions or wishes to discuss this application, kindly telephone the undersigned at the below-listed number.

Respectfully submitted, NATH & ASSOCIATES PLLC

Gary M. Nath, Reg. No. 26,965 Sheldon M. McGee, Reg. No. 50,454

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INFORMA	TION	DISCLOSURE CI	MOITAT	10/562,1	.37	December 23, 2005	Unknown	
				PATENT	DOCUM	ENTS		
Examiner Initial		Document Number	i .	ssue / ation Date		Inventor	Filed	
INICIAL	A1	5,965,575		ct. 1999		Peglion et al.	27 Mar. 1998	
	A2	2003/0008806		in. 2003	 	Lebel et al.	19 Apr. 2002	
	A3	2003/0018047		an. 2003	 	Lebel et al.	3 May 2002	
	A4	2003/0032579		eb. 2003		Lebel et al.	20 Jun. 2002	
		2000/00020/3	<u> </u>	GN PATENT	DOCI			
Examiner				011 11111111	1			
Initial		Document Number	Public	cation Date	e _	Country	Translation	
	A5	1 250 923 A2	23 0	ct. 2002		EP	N/A	
	A6	98/55118 A2	L	ec. 1998		WO	N/A	
	A7	01/24781 A2		pr. 2001		WO	N/A	
	A8	02/48144 A1	1	Tun. 2002		WO	N/A	
	A9	03/000269 A2	3 Ja	an. 2003		WO	Abstract	
				OTHE	R _			
Examiner						D. Livert Description	-4- \	
Initial	-	(Incl	uding A	uthor, Tit	le, Da	te, Pertinent Pages, e	a Approach to	
	Benovsky, P., et al., "Aza-Annulation as a Versatile Approach to							
	the Synthesis of Non-Benzodiazepene Compounds for the Treatment of Sleep Disorders", <u>Tetrahedron Letters</u> , vol. 38, no. 49, pp.							
	A10 8475-8478, (1997).						.o. 137 pp.	
							by [2+2]	
	Diaz, M., et al., "Syntheses of Lamellarins I and K by [3+2]							
Cycloaddition of a Nitrone to an Alkyne", Synlett, no. 7 All 1164-1166, (2001).						10. /, pp.		
						- C N - 1		
	Fujishige, K., et al., "Cloning and Characterization of a Nove Human Phosphodiesterase that Hydrolyzes Both cAMP and cGMP						of a Novel	
							274 no 26	
(PDE10A)", The Journal of Biological Chemistry, vol. A12 pp. 18438-18445, (1999).						. 2/4, 110. 20,		
Fujishige, K., et al., "The human phosphodiesterase PDE10A g							PDE10A gene",	
A13 Eur. J. Biochem., vol. 267, pp. 5943-5951, (2000).								
	Fujishige, K., et al., "Striatum- and testis-specific phosphodiesterase PDE10A: Isolation and characterization of a r						ic	
ļ							ation of a rat	
A14 PDE10A", Eur. J. Biochem., vol. 266, pp. 111				66, pp. 1118-1127,	(1999).			
	Govindachari, T.R., et al., "Application of the Bruckner Me							
	to the Synthesis of Phenanthridine Derivatives", J. Chem. Soc.,						Chem. Soc.,	
	A15 pp. 4280-4283, (1956).							
Examiner					Date Considered			

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP ' 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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FORM PTO-1449

INFORMATION DISCLOSURE CITATION

Document Number

Document Number

03/014115 A1

03/051877 A1

03/077949 A2

03/093499 A2

A18 03/014116 A1

A19 03/014117 A1

A23 2005/002579 A1

A24 2005/003130 A1

Attorney Docket: 27098U In re Application of: Art Unit: 1614 Filed: Appl. No: December 23, 2005 10/562,137 Filed Inventor Translation Country N/A WO WO N/A N/A WO WO N/A N/A WO N/A WO WO N/A N/A WO

OTHER

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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Issue /

Publication Date

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20 Feb. 2003

20 Feb. 2003

20 Feb. 2003

26 Jun. 2003

25 Sep. 2003

13 Nov. 2003

13 Jan. 2005

13 Jan. 2005

Initial		(Including Author, Title, Date, Pertinent Pages, etc.)
	A25	Hershenson, F.M., "Synthesis of Ring-Fused Pyrroles. II. 1,3-Dipolar Cycloaddition Reactions of Munchnone Derivatives Obtained from Tetrahydroisoquinoline-1-carboxylic Acids", J. Org. Chem., vol. 40, no. 6, (1975).
	A26	Kotera, J., et al., "Characterization and Phosphorylation of PDE10A2, a Novel Alternative Splice Variant of Human Phosphodiesterase that Hydrolyzes cAMP and cGMP", Biochemical and Biophysical Research Communications, vol. 261, pp. 551-557, (1999).
	A27	Loughney, K., et al., "Isolation and characterization of cDNAs encoding PDE5A, a human cGMP-binding, cGMP-specific 3',5'-cyclic nucleotide phosphodiesterase", Gene, vol. 216, pp. 139-147, (1998).
	A28	Meyer, H., "Pyrrole durch cyclisierende Michael-Addition von Enaminen", Liebigs Ann. Chem., pp. 1534-1544, (1981). (ABSTRACT)
	A29	Shepard, E.R., et al., "Preparation of Some Analogs of Papaverine", J. Org. Chem., vol. 17, pp. 568-576, (1952).
	A30	Soderling, S.H., et al., "Isolation and characterization of a dual-substrate phosphodiesterase gene family: PDE10A", Proc. Natl. Acad. Sci. USA, vol. 96, pp. 7071-7076, (1999).

Examiner

Date Considered

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